

ABSTRACT

Retail milk pricing and other selected merchandising practices used by retail food stores to sell milk in 56 markets are analyzed. The stores sold milk during 1969-71 at many prices--ranging from three prices in one market to 26 in another. Generally, price structures for milk were more stable in markets with State retail pricing regulation than in those without regulation. In regulated markets, a much higher proportion of all milk was sold at modal (most common) prices than in unregulated markets. Chain-owned supermarkets generally priced milk 1 cent to 2 cents lower than other supermarkets. The study also examines the importance of retail foodstores in the marketing of milk as indicated by their use of store brands and backward integration by the stores into milk processing.

Keywords: Milk, pricing, marketing, sales, chainstores.

PREFACE

This is a companion report to Agricultural Economic Report No. 207, Pricing Milk and Dairy Products--Principles, Practices, and Problems, by Alden C. Manchester, published by the U.S. Department of Agriculture in June 1971. For the present report, tables 5 and 7 to 16 of the earlier study have been revised with data collected during May 1971 for 17 additional markets in the Southeastern States of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, and Tennessee.

The study focuses on the current situation in milk pricing and other merchandising practices of retail foodstores. These practices influence consumer demand, marketing costs and efficiency, and returns to producers.

CONTENTS

| | <u>Page</u> |
|--|-------------|
| SUMMARY | v |
| INTRODUCTION | 1 |
| SCOPE OF STUDY | 2 |
| SOURCE OF MILK FOR MARKETS | 3 |
| BRAND AND PACKAGING ARRANGEMENT | 3 |
| Supermarkets | 5 |
| Convenience Stores | 5 |
| Dairy Stores | 9 |
| Whole Milk Sales | 9 |
| MILK PRICING STRUCTURE | 11 |
| Variation in Sales From Modal Prices | 12 |
| Brand Pricing | 12 |
| Milk Price Differentials Between Containers | 17 |
| Milk Prices in Supermarkets and Other Foodstores | 17 |
| Price Differentials Between Whole and Lowfat Milks | 21 |
| COMPARISON OF CHAINSTORE PRICES WITH THOSE OF OTHER SUPERMARKETS | 21 |
| SALES BY TYPE OF CONTAINER | 21 |
| LOWFAT MILK SALES IN SOUTHEASTERN MARKETS | 25 |
| APPENDIX | 28 |

SUMMARY

The number of retail prices for milk sold during 1969-71 in 56 Eastern markets ranged from three in Montgomery, Ala., to 26 in Huntington, W. Va. The number of selling prices in the markets was influenced by: Whether States regulated retail prices; number of sizes and kinds of containers; number and kinds of brands of milk sold; differences in butterfat content; and the pricing policy of stores.

The proportion of milk sold at modal (most common) prices was much higher in controlled markets--that is, markets where prices were regulated by the State. Over one-half of the milk in 52 percent of the controlled markets was sold at modal prices, whereas only 21 percent of the uncontrolled markets had over 50 percent of sales at modal prices. In eight controlled markets in three Southeastern States, 80 percent of the milk was sold at modal prices, 19 percent was sold above, and 1 percent below. In contrast, in nine uncontrolled markets in four other Southeastern States, 34 percent of the milk was sold at modal prices, 21 percent above, and 45 percent below.

Modal selling prices for store and processor brands were generally the same in controlled markets. In uncontrolled markets, store-brand prices were 1 to 3 cents lower per half gallon than processor brands.

Generally, supermarkets priced milk somewhere between the prices charged in dairy stores and those in convenience stores. In markets with both dairy and convenience stores, milk prices in dairy stores were below supermarket prices in about three-fourths of the markets, and convenience store prices were higher than those in supermarkets in about seven-tenths of the markets.

Store price differentials between whole and lowfat milks varied considerably among the markets. Generally, whole milk was priced higher than lowfat milks; however, in some markets, whole milk was priced below lowfat. Whole milk was priced 0.01 cent to 10.9 cents per half gallon below 1-percent milk in 39 percent of the markets; 0.01 cent to 10.9 cents below 2-percent milk in 18 percent of the markets; and 2.0 cents to 10.9 cents below skim milk in 6 percent of the markets.

Chain supermarkets priced half gallons of milk below voluntary and co-operative stores in 52 percent of the markets, at the same price in 12 percent, and above in 36 percent. (Voluntary stores are banded together by a wholesaler; cooperative stores band together to seek a wholesaler.) Supermarket prices for half gallons were below those of independent stores in 60 percent of the markets, the same in 10 percent, and above in 30 percent. The difference in price was usually 1 to 2 cents, whether the chainstore price was above or below that of the other stores.

Store-brand milk accounted for 57 percent of all milk sold in the 56 markets, processor-brand milk for 37 percent, and store brands sold by processor-owned stores for 6 percent. Slightly over one-half of the store-brand milk was bottled in plants owned by the stores.

Eighty-five percent of the milk sold in the markets was obtained from processors located outside the incorporated boundaries of the cities. Slightly over two-thirds of this "outside" milk came from processors within 50 miles, 23 percent from processors located between 50 and 149 miles, and 9.5 percent from processors within 150 to 249 miles.

The volume of processor-brand milk moved into the markets was 5.7 percent greater than the volume of store-brand milk. Slightly over 90 percent of the processor-brand milk came from within 100 miles, whereas only 79 percent of the store-brand milk came from within this distance. The remaining processor-brand milk came from distances between 100 to 199 miles and the store-brand milk between 100 to 249 miles. Nearly 87 percent of the store-brand milk transported over 100 miles was bottled in store-owned processing plants.

MILK SALES IN FOODSTORES: PRICING AND OTHER
MERCHANDISING PRACTICES

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INTRODUCTION

The retail foodstore has become the most important customer of the milk distributor as well as the most important source of milk for most consumers. Merchandising practices used by retail foodstores to sell milk are, therefore, of significant interest to all segments of the dairy industry and to consumers.

In 1969, half of all fluid milk was sold through such retail outlets as supermarkets, convenience stores, dairy stores, other grocery stores and delicatessens, and commissaries. Home delivery, the mainstay of milk distributors for many years, has almost disappeared in many cities. It now accounts for less than one-fourth of all milk sales. Institutional outlets, vending machines, and plant and farm sales to consumers account for the remaining sales. 1/

These changes in sales outlets, along with such other changes as loss of space in dairy cases in stores, increased usage of store brands, integration into milk processing by retailers, and changes in milk procurement policies by stores, have considerably weakened the influence milk processors once exercised in sales of their product. Thus, processors have lost much of the close contact with consumers they once had.

Consumers in any given market are not confronted with any one price for whole milk. The number may vary from as few as three to more than 20. In a given store, the number of prices may range from three to six or more. Most individual store differences come from: Selling milk in more than one size and type of container; selling both processor and store brand of milk; selling secondary brands; selling whole milks with varying fat content; and whether retail prices are regulated.

Minimum prices to producers for milk in the areas included in this study are regulated either by State or Federal orders. Therefore, the basic raw milk costs in a given community are essentially the same and do not account

1/ Manchester, Alden C. Pricing Milk and Dairy Products--Principles, Practices, and Problems. U.S. Dept. Agr., Agr. Econ. Rpt. No. 207, p. 11. June 1971.

for the variations in retail prices within a market. The variation results from differences in marketing costs and charges, and in merchandising policies.

Consumers are affected by price differentials for fluid milk and adjust purchasing patterns accordingly. To the extent that such adjustments result in decreased fluid milk consumption, returns to producers are lowered. To the extent that purchases are shifted between retail sources, the shift brings about adjustments in the competitive structure. Price differences and merchandising policies, therefore, are significant to producers, consumers, and marketing firms.

The increased use of store-brand milk has not only increased the proportion of milk sold under store labels but also has undoubtedly caused a decline in the average number of brands of milk sold per store. This is true especially for chainstores, many of which carry only their own brand or their own brand plus one processor brand.

This study examines some of the more important merchandising practices used by retail foodstores to sell milk. The main focus is on the pricing structure for milk and the kinds and relative importance of different brands of milk sold.

SCOPE OF STUDY

The analysis includes data for 436 stores in 56 markets--346 supermarkets, 49 convenience stores, and 41 dairy stores. Most of these are representatives of chainstore divisions, so that a substantial portion of milk sales in the eastern United States is included.

Data for 39 markets were collected in 1969-70 by the Northeast Regional Dairy Marketing Committee (NEM-40); these markets are located in 16 Northeastern, Middle Atlantic, and North Central States. ^{2/} Data for the other 17 markets, in seven Southeastern States, were collected in May 1971 during the author's visits to the dairy departments of each store (see the appendix for listing of markets).

Twenty-three markets were in States that regulated (controlled) both the farm and store prices of milk. All but one of these States also had trade practice regulations. The other 33 markets were in States which exercised no control over retail pricing of milk. One of these States had the authority to fix retail prices but was not using it, and two others had trade practice regulations.

The 436 stores surveyed represented 38.9 percent of all milk sold in the 56 markets. Stores in State-controlled markets accounted for 26.1 percent of total sales, whereas stores in uncontrolled markets accounted for 45.7 percent.

^{2/} Includes District of Columbia. See footnote 1.

Supermarkets accounted for about 87 percent of the store sales of milk in the markets. The remaining 13 percent was about equally divided between convenience and dairy stores.

SOURCE OF MILK FOR MARKETS

Earlier in this century, all milk sold in retail foodstores in most communities was produced locally. However, in many cities today, a large part of the milk sold in stores may come from farms or bottling plants located over 100 miles away. Some of the economic forces which brought about this change in the movement of milk are: (1) Local supplies of milk became deficient as communities grew in size, so supply areas have expanded; (2) courts have struck down many of the local sanitary and other regulations which once restricted the flow of milk between markets; (3) technological improvements in transportation, refrigeration, packaging, and highways have eased the flow of milk into markets; (4) technological changes in milk processing have resulted in fewer and larger plants with concurrent need for larger supply and distribution areas; (5) growth in market power of retail foodstores has been brought about by backward integration into processing and centralized procurement programs; and (6) consumer sales have shifted from home delivery to retail foodstores.

Only 15 percent of the milk sold in the stores surveyed came from processors located within the corporate limits of the cities in which the stores were located. The remaining milk came from processors located within a 250-mile radius. Two-thirds was obtained from processors within 50 miles, 23 percent from 50 to 149 miles, and 9.5 percent from 150 to 249 miles (table 1).

The volume of processor-brand milk shipped into the markets surveyed was slightly higher than the volume of store-brand milk. However, store-brand milk tended to come from greater distances. Almost four-fifths of the processor-brand milk came from processing plants located within 50 miles, compared with only 57 percent of the store-brand milk. Ten percent of the store-brand milk moved into the markets from distances greater than 100 miles; nearly 87 percent of this milk was bottled in store-owned processing plants. This longer distance movement of milk from store-owned plants indicates that there are advantages for food chains with their own processing plants in distributing milk to stores located over rather large areas--especially if the stores have high sales volume. 3/

BRAND AND PACKAGING ARRANGEMENT

Managers of retail foodstores generally prefer to handle popular brands of milk--that is, brands that will bring customers into their stores. Even more so, managers prefer to sell store brands of milk because it helps to build consumer loyalty and allows more control in procuring and promoting the sale of milk. 4/

3/ Conner, M. C., and McCullough, T. D. Cost Analysis of Distributing Milk in Outside Markets. Va. Polytechnic Inst. and State Univ. Res. Div. Bul. No. 68, p. 47. Dec. 1971.

4/ Fallert, Richard F. A Survey of Central Milk Programs in Midwestern Food Chains. U.S. Dept. Agr., Mktg. Res. Rpt. No. 944, p. 15. (No. Central Reg. Pub. No. 211.) Dec. 1971.

Table 1--Proportion of whole milk sold, by distance from processor to store, type of brand, and type of market, 56 markets, 1969-71

| Type of brand and market | Distance in miles from processor to store ^{1/} | | | | | Total |
|--------------------------|---|---------|-----------|-----------|-----------|-------|
| | 0-49.9 | 50-99.9 | 100-149.9 | 150-199.9 | 200-249.9 | |
| <hr/> | | | | | | |
| | Percent of milk | | | | | |
| <hr/> | | | | | | |
| Processor brand: | | | | | | |
| Controlled markets | 2.9 | 4.0 | 0.4 | -- | -- | 7.3 |
| Uncontrolled markets ... | 37.4 | 3.5 | 1.8 | 2.8 | -- | 45.5 |
| Subtotal | 40.3 | 7.5 | 2.2 | 2.8 | -- | 52.8 |
| <hr/> | | | | | | |
| Store brand: | | | | | | |
| Integrated: | | | | | | |
| Controlled markets ... | 6.0 | 2.3 | 0.2 | .9 | 0.4 | 9.8 |
| Uncontrolled markets . | 8.3 | 3.3 | 2.4 | 3.7 | 1.0 | 18.7 |
| Subtotal | 14.3 | 5.6 | 2.6 | 4.6 | 1.4 | 28.5 |
| <hr/> | | | | | | |
| Custom packaged: | | | | | | |
| Controlled markets ... | 3.9 | 1.5 | .1 | -- | -- | 5.5 |
| Uncontrolled markets . | 8.8 | 3.2 | .5 | .7 | -- | 13.2 |
| Subtotal | 12.7 | 4.7 | .6 | .7 | -- | 18.7 |
| <hr/> | | | | | | |
| Total store brand | 27.0 | 10.3 | 3.2 | 5.3 | 1.4 | 47.2 |
| <hr/> | | | | | | |
| Total | 67.3 | 17.8 | 5.4 | 8.1 | 1.4 | 100.0 |
| <hr/> | | | | | | |

-- means not applicable.

^{1/} Distance outside city limits.

The stores surveyed fall into four categories: (1) those selling store brands only; (2) those selling both store and processor brands; (3) those selling processor brands only; and (4) those owned by processors selling store brands only. Those selling store brands only represented 21.3 percent of all stores surveyed and 31.4 percent of total sales. Slightly over three-fourths of the milk sold in these stores was processed by store-owned plants--the rest was custom packaged in other plants. Slightly over 39 percent of all stores sold both store and processor brand milk. These stores accounted for the largest proportion--38.1 percent--of total sales. Stores handling processor brands only comprised 35.6 percent of all stores and had 24.5 percent of all sales. Processor-owned stores accounted for only 3.9 percent of the stores and 6.0 percent of total sales (tables 2 and 3).

Supermarkets

Almost half of the 346 supermarkets surveyed sold both store and processor brands of milk. Slightly over 45 percent of these stores carried one store brand, either integrated (packaged in a store-owned plant) or custom packaged, and one processor brand. Another 31.5 percent of the stores had one more processor brand. The other stores handled three to five processor brands in addition to the store brand. The number of brands carried by all supermarkets averaged 2.7 per store, ranging from two to six (table 4).

Supermarkets selling only processor brands accounted for slightly over one-third of all supermarkets. The number of brands averaged 2.4 per store. Twenty-one percent sold only one brand, about 55 percent sold two to three brands, and the others sold four to six brands.

Slightly over 17 percent of the stores handled store brands only. Two-thirds of these stores sold only one primary brand. About one-fourth also had one secondary brand.

Over 61 percent of all milk sold by supermarkets in the 56 markets was sold under store label. This was about equally divided between integrated store brand and custom-packaged store brand. The remaining milk was sold under a processor label.

The proportion of supermarkets with store-brand milk in uncontrolled markets was 25 percent higher than that for supermarkets in controlled markets. However, 32.2 percent of the controlled supermarkets packaged all or part of their own store brands, but only 24.3 percent of the uncontrolled supermarkets did. Apparently, in States where prices are fixed administratively, supermarkets have greater economic incentive to integrate backward into milk processing, whereas in uncontrolled markets, stores have greater freedom to promote the sale of milk through price competition.

Convenience Stores

The 49 convenience stores surveyed were of two types: Those which sold processor brands only and processor-owned stores which sold store-brand milk.

Table 2--Percentage of whole milk sold, by type of store, type and size of market, brand, and packaging arrangement, 56 markets, 1969-71 ^{1/}

| Brand and packaging arrangements | Percent of milk sold in-- | | | | | | | | | |
|---|---------------------------|---------------------|---------------|---------------------|-------|-------------|---------------------|-----------------------------|---------------------|---------------|
| | Supermarkets | | | | | All markets | | | | |
| | Small markets | | Large markets | | | Uncont. | | Cont. ^{2/} markets | | |
| | Uncont. | Cont. ^{2/} | Uncont. | Cont. ^{2/} | All | Uncont. | Cont. ^{2/} | Uncont. | Cont. ^{2/} | All |
| | | | | | | | | | | |
| Stores selling own brand only: | | | | | | | | | | |
| Integrated: | | | | | | | | | | |
| Primary brand | 4.3 | 9.6 | 51.1 | 15.6 | 22.5 | -- | -- | 33.1 | -- | 21.7 |
| Secondary brand | 1.3 | .6 | 6.9 | -- | 2.8 | -- | -- | -- | -- | 2.4 |
| Custom-packaged: | | | | | | | | | | |
| Primary brand ^{4/} | 8.5 | 1.6 | -- | 19.3 | 7.4 | -- | -- | 13.8 | -- | 7.3 |
| Subtotal | 14.1 | 11.8 | 58.0 | 34.9 | 32.7 | | | 46.9 | | 31.4 |
| Stores selling own and processor brand: | | | | | | | | | | |
| Store brand: | | | | | | | | | | |
| Integrated: | | | | | | | | | | |
| Primary brand | 10.2 | 9.4 | 2.0 | -- | 5.1 | -- | -- | 4.9 | -- | 4.8 |
| Secondary brand | .4 | .1 | -- | -- | .1 | -- | -- | -- | -- | .1 |
| Custom packaged: | | | | | | | | | | |
| Primary brand | 33.1 | 16.1 | 19.0 | 16.6 | 23.0 | -- | -- | -- | -- | 20.0 |
| Secondary brand | 1.6 | -- | -- | -- | .5 | -- | -- | -- | -- | .5 |
| Processor brand: | | | | | | | | | | |
| Processor supplying store brands: | | | | | | | | | | |
| Primary brand | 12.2 | 10.8 | 9.6 | 8.1 | 10.3 | -- | -- | -- | -- | 8.9 |
| Secondary brand | .1 | ^{5/} | -- | -- | .1 | -- | -- | -- | -- | ^{5/} |
| Other processor: | | | | | | | | | | |
| Primary brand ^{4/} | 10.4 | 5.4 | .4 | -- | 4.3 | -- | -- | 1.8 | -- | 3.8 |
| Subtotal | 68.0 | 41.8 | 31.0 | 24.7 | 43.4 | | | 6.7 | | 38.1 |
| Stores selling processor brands only: | | | | | | | | | | |
| Primary brand(s): | | | | | | | | | | |
| One brand | 4.4 | 8.3 | 4.4 | 32.5 | 11.1 | 49.5 | | 3.1 | | 13.2 |
| Two brands | 4.8 | 24.0 | 5.2 | -- | 6.0 | .5 | | -- | | 5.2 |
| Three brands | 7.0 | 8.2 | -- | 7.9 | 5.1 | .8 | | -- | | 4.5 |
| Four brands | .5 | 5.3 | -- | -- | .8 | -- | | -- | | .7 |
| Five brands | -- | .5 | -- | -- | .1 | -- | | -- | | .1 |
| Secondary brand ^{6/} | 1.2 | ^{5/} | 1.4 | -- | .8 | .7 | | -- | | .8 |
| Subtotal | 17.9 | 46.4 | 11.0 | 40.4 | 23.9 | 51.5 | | 3.1 | | 24.5 |
| Processor-owned store ^{4/} | -- | -- | -- | -- | -- | 48.5 | | 43.3 | | 6.0 |
| Grand total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 | | 100.0 |

-- means not applicable.

^{1/} These markets are not a representative sample of the United States. They are located in Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Maine, Maryland, New Hampshire, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, and West Virginia.

^{2/} The markets with State resale price control are in Alabama, Pennsylvania, South Carolina, Maine, New Jersey, Vermont, and Virginia.

^{3/} Estimated percentage of whole milk sold by store groups surveyed, based on facings (number of containers facing the customer) for within-store weights and total sales for all products by the store group in the market for between-group weights.

^{4/} No secondary brands sold.

^{5/} Less than 0.05 percent.

^{6/} Only one brand.

Table 3--Stores surveyed, by brand of whole milk sold, kind of store, and type and size of market, 56 markets, 1969-71

| Brand and packaging arrangement | Supermarkets | | | | | | All convenience stores | | | | | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------------|-------------------|-------------------|------------------------|-------------------|-------------------|
| | Controlled | | | Uncontrolled | | | All convenience stores | | | All convenience stores | | |
| | Large | Small | Markets | Large | Small | Markets | Large | Small | Markets | Large | Small | Markets |
| | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores | Percent of stores |
| Stores selling own brand only: | | | | | | | | | | | | |
| Integrated brands only: | | | | | | | | | | | | |
| 1 primary | 28.6 | 7.7 | 8.9 | 17.2 | 3.1 | 5.0 | 6.3 | -- | 53.7 | 10.8 | -- | -- |
| 2 primary | -- | .8 | -- | -- | -- | -- | .3 | -- | -- | .2 | -- | -- |
| 1 primary + 1 secondary | -- | .9 | -- | 24.1 | 1.6 | 4.5 | 3.2 | -- | -- | 3.4 | -- | -- |
| 2 " + 1 " | -- | 1.7 | 1.6 | -- | .5 | .5 | .9 | -- | -- | .7 | -- | -- |
| Custom-packaged (CP) brands only: | | | | | | | | | | | | |
| 1 primary | -- | -- | -- | 13.8 | 9.3 | 9.9 | 6.4 | -- | 7.3 | 6.2 | -- | -- |
| Subtotal 1/ | 28.6 | 11.1 | 12.1 | 55.2 | 14.5 | 19.8 | 17.1 | -- | 61.1 | 21.3 | -- | -- |
| Stores selling own and processor brands: | | | | | | | | | | | | |
| Stores selling integrated brands: | | | | | | | | | | | | |
| 1 prim. integr. + 1 prim. proc. | -- | 5.1 | 4.8 | 3.4 | 10.9 | 9.9 | 8.1 | -- | 2.4 | 6.6 | -- | -- |
| 1 " " + 2 " " | -- | 12.8 | 12.1 | 3.4 | 1.6 | 1.8 | 5.5 | -- | -- | 4.4 | -- | -- |
| 1 " " + 3 " " | -- | .8 | .8 | -- | 3.6 | 3.2 | 2.3 | -- | -- | 1.8 | -- | -- |
| 1 prim. integr. + 1 sec. integr. + 1 prim. proc. | -- | 1.7 | 1.6 | -- | 1.0 | .9 | .6 | -- | -- | .9 | -- | -- |
| 2 " " + 1 " " + 1 " " | -- | .9 | .8 | -- | -- | -- | .6 | -- | -- | .5 | -- | -- |
| 1 " " + 1 " " + 2 " " | -- | -- | -- | -- | -- | -- | .3 | -- | -- | .2 | -- | -- |
| 1 " " + 1 prim. proc. + 1 sec. proc. | -- | -- | -- | -- | .5 | .4 | .3 | -- | -- | .2 | -- | -- |
| Stores selling custom-packaged (CP) store brands: | | | | | | | | | | | | |
| 1 prim. CP + 1 prim. processor | 42.8 | 12.0 | 13.7 | 10.3 | 14.5 | 14.0 | 13.9 | -- | 4.9 | 11.5 | -- | -- |
| 1 " " + 2 " " | -- | 7.7 | 7.3 | -- | 13.1 | 11.3 | 9.8 | -- | -- | 7.8 | -- | -- |
| 1 " " + 3 " " | -- | -- | -- | -- | 5.7 | 5.0 | 3.2 | -- | -- | 2.5 | -- | -- |
| 1 " " + 4 " " | -- | 2.6 | 2.4 | -- | 1.0 | .9 | 1.4 | -- | -- | 1.1 | -- | -- |
| 1 " " + 5 " " | -- | -- | -- | -- | .5 | .4 | .3 | -- | -- | .2 | -- | -- |
| 1 prim. CP + 1 sec. CP + 1 prim. proc. | -- | -- | -- | -- | 1.0 | .9 | .6 | -- | -- | .5 | -- | -- |
| 1 " " + 1 " " + 2 " " | -- | -- | -- | -- | .5 | .4 | .3 | -- | -- | .2 | -- | -- |
| 1 " " + 1 " " + 3 " " | -- | -- | -- | -- | .5 | .4 | .3 | -- | -- | .2 | -- | -- |
| 1 prim. CP + 1 prim. proc. + 1 sec. proc. | -- | -- | -- | -- | 1.6 | 1.4 | .9 | -- | -- | .7 | -- | -- |
| 1 " " + 1 sec. CP + 3 prim. proc. + 1 sec. proc. | -- | .8 | .8 | -- | -- | -- | .3 | -- | -- | .2 | -- | -- |
| Subtotal 1/ | 42.8 | 44.5 | 44.4 | 17.2 | 56.0 | 50.9 | 48.5 | -- | 7.3 | 39.2 | -- | -- |
| Stores selling processor brands only: 1/ | | | | | | | | | | | | |
| 1 primary brand | 14.3 | 6.8 | 7.3 | 6.9 | 7.3 | 7.2 | 7.2 | -- | 55.1 | 2.4 | -- | -- |
| 2 " " s | -- | 11.1 | 10.5 | 10.3 | 6.2 | 6.8 | 8.1 | -- | 8.2 | 2.4 | -- | -- |
| 3 " " s | 14.3 | 17.1 | 16.9 | -- | 8.3 | 7.2 | 10.7 | -- | 4.1 | -- | -- | -- |
| 4 " " s | -- | 7.7 | 7.2 | -- | 1.5 | 1.4 | 3.5 | -- | -- | 2.8 | -- | -- |
| 5 " " s | -- | 1.7 | 1.6 | -- | 1.5 | 1.4 | 1.4 | -- | -- | 1.1 | -- | -- |
| 1 primary brand + 1 secondary | -- | -- | -- | 10.3 | 1.0 | 2.2 | 1.4 | -- | 2.0 | 1.4 | -- | -- |
| 2 " " s + 1 " " | -- | -- | -- | -- | 1.0 | .9 | .6 | -- | -- | .5 | -- | -- |
| 3 " " s + 1 " " | -- | -- | -- | -- | 2.6 | 2.2 | 1.4 | -- | -- | 1.1 | -- | -- |
| Subtotal 1/ | 28.6 | 44.4 | 43.5 | 27.6 | 29.5 | 29.3 | 34.4 | -- | 69.4 | 4.9 | -- | -- |
| Processor-owned - 1 primary 2/ | -- | -- | -- | -- | -- | -- | -- | -- | 30.6 | 25.8 | -- | -- |
| Total 1/ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | -- | 100.0 | 100.0 | -- | -- |

-- means not applicable.

1/ May not total because of rounding.

2/ Includes a few secondary brands.

Table 4--Number of brands of whole milk per store, by type of store, type and size of market, and kind of brand, 56 markets, 1969-71

| Type of store, kind and size of market, and brand sold | Brands sold by stores with different packaging arrangements: | | | | | | | | | |
|--|--|-------------------------------|-------|----------------------------|--------------------------|-------|-------------------------------|--------------------------------|--------------------------|-------|
| | Store brands only | | | Store and processor brands | | | Processor-owned | | | Total |
| | Integrated : brands only | Custom-packaged : brands only | Total | Integrated : brands | Custom-packaged : brands | Total | Processor-owned : brands only | Processor-owned : store brands | Processor-owned : brands | |
| Supermarkets: | | | | | | | | | | |
| Controlled: | | | | | | | | | | |
| Large markets: | | | | | | | | | | |
| Primary | 1.0 | -- | 1.0 | -- | 2.0 | 2.0 | -- | -- | -- | 1.7 |
| Secondary | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Small markets: | | | | | | | | | | |
| Primary | 1.2 | -- | 1.2 | 2.8 | 2.7 | 2.8 | -- | -- | -- | 2.6 |
| Secondary | .2 | -- | .2 | .1 | .1 | .1 | -- | -- | -- | .1 |
| Total controlled: | 1.2 | -- | 1.2 | 2.8 | 2.7 | 2.7 | -- | -- | -- | 2.5 |
| Primary | 1.2 | -- | 1.2 | 2.8 | 2.7 | 2.7 | -- | -- | -- | .1 |
| Secondary | .2 | -- | .2 | .1 | .1 | .1 | -- | -- | -- | -- |
| Uncontrolled: | | | | | | | | | | |
| Large markets: | | | | | | | | | | |
| Primary | 1.0 | 1.0 | 1.0 | 2.5 | 2.0 | 2.2 | 1.4 | -- | -- | 1.3 |
| Secondary | .6 | -- | .4 | -- | -- | -- | .4 | -- | -- | .3 |
| Small markets: | | | | | | | | | | |
| Primary | 1.1 | 1.0 | 1.0 | 2.5 | 2.8 | 2.7 | 2.4 | -- | -- | 2.4 |
| Secondary | .4 | -- | .1 | .1 | .1 | .1 | .2 | -- | -- | .1 |
| Total uncontrolled: | 1.0 | 1.0 | 1.0 | 2.5 | 2.8 | 2.7 | 2.2 | -- | -- | 2.2 |
| Primary | 1.0 | -- | .2 | .1 | .1 | .1 | .2 | -- | -- | .1 |
| Secondary | .5 | -- | .2 | .1 | .1 | .1 | .2 | -- | -- | -- |
| All supermarkets: | | | | | | | | | | |
| Primary | 1.1 | 1.0 | 1.1 | 2.6 | 2.7 | 2.7 | 2.4 | -- | -- | 2.3 |
| Secondary | .4 | -- | .2 | .1 | .1 | .1 | .1 | -- | -- | .1 |
| Subtotal | 1.5 | 1.0 | 1.3 | 2.7 | 2.8 | 2.8 | 2.5 | -- | -- | 2.4 |
| Convenience stores: | | | | | | | | | | |
| Primary | 1.0 | 1.0 | 1.0 | -- | -- | -- | 1.2 | 1.0 | -- | 1.2 |
| Secondary | .6 | -- | .4 | -- | -- | -- | .2 | -- | -- | .1 |
| Subtotal | 1.6 | 1.0 | 1.4 | -- | -- | -- | 1.4 | 1.0 | -- | 1.3 |
| Dairy stores: | | | | | | | | | | |
| Primary 1/ | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.0 | -- | 1.1 |
| All stores: | | | | | | | | | | |
| Primary | 1.1 | 1.0 | 1.0 | 2.6 | 2.7 | 2.7 | 2.1 | 1.0 | -- | 2.1 |
| Secondary | .2 | -- | .2 | .1 | .1 | .1 | .1 | -- | -- | .1 |
| Total | 1.3 | 1.0 | 1.2 | 2.7 | 2.8 | 2.8 | 2.2 | 1.0 | -- | 2.2 |

-- means not applicable.
1/ No secondary brands.

Generally, both types of stores carried only one brand of milk. A few of the stores selling only processor brands carried two or three brands; also, a few of the processor-owned stores had a secondary brand (table 3).

Dairy Stores

Almost 27 percent of the dairy stores were owned by milk processors; however, about 56 percent were owned by other organizations which had their own milk processing plants. The other stores were not directly associated with plants through ownership.

Almost 88 percent of the dairy stores (including those processor owned) sold only store-brand milk. Both processor and store brands were handled by slightly over 7 percent, and processor brands only by the remaining 5 percent. Most dairy stores sold only one brand of milk, although a few stores had two or three brands (table 3).

Whole Milk Sales

Sales by supermarkets accounted for 86.9 percent of all whole milk sold by the stores surveyed. Convenience and dairy stores shared about equally the remaining 13.1 percent.

Store brands accounted for the largest share of milk sales in the 56 markets. For all stores, store brands represented 56.8 percent of sales; processor brands, 37.2 percent; and store brands sold in stores owned by processors, 6.0 percent (table 2). Slightly over one-half of the store-brand milk was processed in store-owned plants. These plants were almost all owned by regional and national chainstore organizations.

Store-brand milk was much more important to chainstores than to other types of supermarkets. It accounted for 65.4 percent of the sales of chainstores; 33.8 percent of the sales of voluntary and cooperative stores ^{5/}; and 14.3 percent of the sales of independent stores. Chainstores accounted for 95.9 percent of all store-brand milk sold by supermarkets; 98.5 percent of all integrated store brands; and 92.9 percent of all custom-packaged sales (table 5).

The independent and voluntary or cooperative stores sold mostly processor brands of milk. These brands represented 89.2 percent of the sales by independents and 66.7 percent of the sales by voluntary or cooperative stores. A few of the voluntary or cooperative stores surveyed had integrated store brands of milk; however, this accounted for only 4.9 percent of milk sold by these stores (table 5).

^{5/} Voluntary stores are banded together by a wholesaler who seeks them out; cooperatives band together to organize a wholesaler to serve them.

Table 5--Stores selling store and processor brands of whole milk, by type of store and type of market, 56 markets, 1969-71

| Brand and packaging arrangement | Chainstores | | Independent stores | | Voluntary and cooperative stores | | Total |
|---|----------------------|------------------------|----------------------|------------------------|----------------------------------|------------------------|-------|
| | Controlled : markets | Uncontrolled : markets | Controlled : markets | Uncontrolled : markets | Controlled : markets | Uncontrolled : markets | |
| Stores selling only own brand: | | | | | | | |
| Integrated | 4.2 | 20.2 | 24.4 | -- | -- | 0.4 | 24.8 |
| Custom-packaged | 4.4 | 2.8 | 7.2 | -- | -- | -- | 7.2 |
| Subtotal | 8.6 | 23.0 | 31.6 | | .4 | | 32.0 |
| Stores selling own and processor brand: | | | | | | | |
| Own brand: | | | | | | | |
| Integrated | .9 | 7.4 | 8.3 | -- | -- | .1 | 8.4 |
| Custom-packaged | 5.3 | 14.9 | 20.2 | -- | 0.1 | .1 | 22.3 |
| Processor supplying: | | | | | | | |
| Custom-packaged | 2.9 | 3.7 | 6.6 | -- | 1/ | .1 | 7.8 |
| Other processor | .5 | 3.0 | 3.5 | -- | -- | .1 | 4.2 |
| Subtotal | 9.6 | 29.0 | 38.6 | .1 | .1 | .4 | 42.7 |
| Stores selling only processor brands: | | | | | | | |
| One brand | 7.9 | 2.2 | 10.1 | -- | .2 | 1/ | 11.0 |
| Two " | 2.6 | 3.2 | 5.8 | -- | .2 | .1 | 6.1 |
| Three " | 2.3 | 2.1 | 4.4 | 1/ | 1/ | 2.1 | 6.5 |
| Four " | .4 | .2 | .6 | 0.2 | -- | 1/ | .8 |
| Five " | -- | -- | -- | -- | -- | 1/ | .8 |
| Secondary brands | 1/ | .8 | .8 | -- | -- | 1/ | .8 |
| Subtotal | 13.2 | 8.5 | 21.7 | .2 | .4 | 2.3 | 25.3 |
| Grand total | 31.4 | 60.5 | 91.9 | .2 | .5 | 3.1 | 100.0 |

-- means not applicable.

1/ Less than 0.05 percent.

MILK PRICING STRUCTURE

Among markets, the number of prices in stores ranged from 26 in Huntington, W. Va., to three in Montgomery, Ala. The difference between these two markets was due largely to the presence or lack of price competition. Retail milk prices were regulated by the State in Montgomery, whereas prices were not regulated in Huntington. Generally, the number of prices in uncontrolled markets was greater than in controlled ones--63.6 percent of the uncontrolled markets had 10 to 26 different prices and only 17.4 percent of the controlled markets had 10 to 15 different prices (table 6).

Supermarkets, especially chainstores, in any given market may have various milk pricing policies. Some examples are (1) areawide pricing, (2) zonal pricing, and (3) individual store pricing. In areawide pricing, the price of milk in each store in the market is the same. Store managers, however, may have some leeway in adjusting prices to meet local competitive conditions. In zonal pricing, the market is divided into zones with variation in milk prices between zones. In individual store pricing, each store manager has the power to adjust prices to meet competition. 6/

Table 6--Distribution of markets with specified numbers of prices for whole milk, by type of market, 56 markets, 1969-71

| Number of prices | Controlled markets | Uncontrolled markets |
|------------------|-----------------------|-------------------------|
| | <u>Number</u> | |
| 3 | 1 | -- |
| 4 | 3 | -- |
| 5 | -- | 2 |
| 6 | 6 | 1 |
| 7 | 3 | 2 |
| 8 | 4 | 2 |
| 9 | 2 | 5 |
| 10 | 1 | 3 |
| 11 | -- | 1 |
| 12 | 1 | 3 |
| 13 | 1 | 3 |
| 14 | -- | 2 |
| 15 | 1 | 2 |
| 16 | -- | 3 |
| 17 | -- | 1 |
| 24 | -- | 1 |
| 25 | -- | 1 |
| 26 | -- | 1 |
| Total | 23 | 33 |

-- means not applicable.

6/ Federal Trade Commission. Economic Report on Food Chain Selling Practices in the District of Columbia and San Francisco. July 1969.

Variation in Sales From Modal Prices

The proportion of milk sold at each market's modal (most common) price was much higher in controlled markets where store prices were regulated by State authorities (table 7). In eight controlled markets in Alabama, South Carolina, and Virginia, 80.0 percent of the milk was sold at modal prices, 19.3 percent above, and only 0.7 percent below. In contrast, in nine Georgia, Florida, North Carolina, and Tennessee uncontrolled markets, 33.8 percent of all milk was sold at modal prices, 45.2 percent was sold above, and 21.0 percent was sold below. In 12 of the 23 controlled markets surveyed, milk sold at modal prices accounted for over 50 percent of the amount sold. In only seven of the 33 uncontrolled markets surveyed was the proportion of milk sold at the modal price higher than one-half.

In only 12 of the 23 controlled markets was any milk sold below modal prices. In 10 of the 12 markets, the amount of milk sold at prices below the mode ranged from 0.1 to 14.9 percent of total sales. In 11 of the 12 markets, prices ranged from 0.1 cent to 1.9 cents below modal prices (table 8).

More milk was sold below modal prices in uncontrolled markets than was sold at or above that level. In only five uncontrolled markets was no milk sold at lower prices. However, in five other markets, 60.0 to 74.9 percent of all milk was sold below modal prices. Most milk sold at 0.1 to 1.9 cents per half gallon below modal prices. In one-third of the markets, however, some milk was sold at 5 cents or more below modal prices. Sales at these prices accounted for 65.0 to 74.9 percent of total sales in two markets (table 8).

Some milk was sold above modal prices in all controlled markets. In 10 of the controlled markets over 50 percent of all milk was sold above modal prices and in no market did sales at these prices account for less than 5 percent of the milk sold. In this range, milk was sold in more markets at prices ranging from 2.0 to 5.9 cents above modal prices than at any other price. In 14 controlled markets, 15 to 64.9 percent of all milk was sold at these prices (table 9).

Some milk was also sold above modal prices in all the uncontrolled markets. Except for one market, at least 5 percent of all milk in each market was sold above the modal price. In 10 markets, this accounted for over 50 percent of total sales. As in controlled markets, most markets were selling milk at 2.0 to 5.9 cents above modal prices. In nine markets, 25 to 49.9 percent of the milk was sold at these prices. In 27 uncontrolled markets, some milk was sold at 9 cents or more over modal prices (table 9).

Brand Pricing

Generally, modal prices per half gallon for both store and processor brands of milk were the same in controlled markets. Some stores in each of 15 controlled markets had both types of brands, and in 11 of these markets the modal price was the same for each brand (table 10). Processor brands sold from 1 to 4.9 cents higher in other controlled markets.

Table 7--Markets selling whole milk at the modal price, by percentage of all milk sold and type of market,
56 markets, 1969-71

| | Percent of milk sold in each market at modal price | : | Controlled markets | : | Uncontrolled markets |
|--------|---|---|-----------------------|---|-------------------------|
| | | | | | <u>Number</u> |
| 0-19 | | : | -- | : | 1 |
| 20-29 | | : | 3 | : | 12 |
| 30-39 | | : | 5 | : | 10 |
| 40-49 | | : | 3 | : | 3 |
| 50-59 | | : | 5 | : | 4 |
| 60-69 | | : | 1 | : | 1 |
| 70-79 | | : | 1 | : | 1 |
| 80-89 | | : | 4 | : | 1 |
| 90-100 | | : | 1 | : | -- |
| Total | | : | 23 | : | 33 |

-- means not applicable.

Table 8--Markets selling whole milk below the modal price, by percentage of all milk sold and type of market, 56 markets, 1969-71

| Percentage of milk sold in each market below modal price | Markets with sales of milk below the modal price by-- | | | | | |
|--|---|--------------|------------------------------|--------------|------------------------|--------------|
| | 0.1-1.9 cents that were-- | | 5 cents and over that were-- | | Any amount that were-- | |
| | Controlled | Uncontrolled | Controlled | Uncontrolled | Controlled | Uncontrolled |
| | markets | markets | markets | markets | markets | markets |
| 0 | 12 | 11 | Number | | 22 | 11 |
| 0.1-4.9 | 4 | 9 | 22 | 2 | 11 | 5 |
| 5.0-9.9 | 6 | 2 | 1 | 3 | 2 | 4 |
| 10.0-14.9 | -- | 2 | -- | 2 | 6 | 1 |
| 15.0-19.9 | -- | 3 | 2 | 1 | 2 | 3 |
| 20.0-24.9 | 1 | 3 | -- | 1 | -- | 4 |
| 25.0-29.9 | -- | -- | -- | 1 | 1 | 1 |
| 30.0-34.9 | -- | -- | -- | -- | -- | 3 |
| 35.0-39.9 | -- | 1 | -- | -- | 1 | 1 |
| 40.0-44.9 | -- | 1 | -- | -- | -- | -- |
| 45.0-49.9 | -- | 1 | -- | -- | -- | 2 |
| 50.0-54.9 | -- | 1 | -- | -- | -- | 3 |
| 55.0-59.9 | -- | -- | -- | -- | -- | 1 |
| 60.0-64.9 | -- | -- | -- | -- | -- | -- |
| 65.0-69.9 | -- | -- | -- | -- | -- | 1 |
| 70.0-74.9 | -- | -- | -- | 1 | -- | 2 |
| Total | 23 | 33 | 23 | 33 | 23 | 33 |

-- means not applicable.

Table 9--Markets selling whole milk above the modal price, by percentage of all milk sold and type of market, 1969-71

| Percent of milk sold above modal price in each market | Markets with sales of milk above the modal price by-- | | | | | |
|---|---|---------------------------|-----------------------------|------------------------|----------------------|------------------------|
| | 0.1-1.9 cents that were-- | 2.0-5.9 cents that were-- | 6 or more cents that were-- | Any amount that were-- | | |
| | Controlled : markets | Uncontrolled : markets | Controlled : markets | Uncontrolled : markets | Controlled : markets | Uncontrolled : markets |
| 0 | 4 | 10 | 1 | 4 | 11 | 6 |
| 0.1-4.9 | 6 | 9 | 2 | 6 | 9 | 8 |
| 5.0-9.9 | 3 | 4 | 5 | 6 | 3 | 9 |
| 10.0-14.9 | 3 | 4 | 1 | 3 | -- | 8 |
| 15.0-19.9 | 2 | 1 | 2 | 1 | -- | 1 |
| 20.0-24.9 | 2 | 2 | 4 | 4 | -- | -- |
| 25.0-29.9 | 2 | 3 | 2 | 2 | -- | 1 |
| 30.0-34.9 | 1 | -- | 2 | 3 | -- | -- |
| 35.0-39.9 | -- | -- | 2 | 1 | -- | 2 |
| 40.0-44.9 | -- | -- | -- | 1 | -- | 3 |
| 45.0-49.9 | -- | -- | 1 | 2 | -- | 1 |
| 50.0-54.9 | -- | -- | -- | -- | -- | 4 |
| 55.0-59.9 | -- | -- | -- | -- | -- | 2 |
| 60.0-64.9 | -- | -- | 1 | -- | -- | 1 |
| 65.0-69.9 | -- | -- | -- | -- | -- | 2 |
| 70.0-74.9 | -- | -- | -- | -- | -- | 3 |
| 75.0-79.9 | -- | -- | -- | -- | -- | 1 |
| Total | 23 | 33 | 23 | 33 | 23 | 33 |

-- means not applicable.

Table 10--Markets selling whole milk by price differential, size of container (paper only), and type of market, 56 markets, 1969-71

| Modal difference between store and processor brands (cents per half gallon) | Modal differential in stores with store and processor brands | | Modal differential between processor brand in stores having only processor brand and store brand in stores having both types of brands | |
|---|---|-------------------------|--|-------------------------|
| | Half gallon | | Half gallon | |
| | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets |
| Processor brand above store brand: | | | | |
| Number of markets | | | | |
| 0 | 11 | 2 | 12 | 10 |
| 0.1-0.9 | -- | -- | -- | -- |
| 1.0-1.9 | 1 | 1 | 1 | 1 |
| 2.0-2.9 | 2 | -- | 2 | -- |
| 3.0-3.9 | -- | -- | 6 | -- |
| 4.0-4.9 | 1 | -- | -- | -- |
| 5.0-5.9 | -- | 1 | -- | 2 |
| 6.0-6.9 | -- | 2 | -- | -- |
| 7.0-7.9 | -- | -- | -- | -- |
| 8.0-8.9 | -- | -- | -- | -- |
| 9.0-9.9 | -- | 2 | -- | -- |
| 10.0-10.9 | -- | 2 | -- | -- |
| 11.0-11.9 | -- | -- | -- | 1 |
| 12.0-12.9 | -- | 1 | -- | -- |
| Store brand above processor brand: | | | | |
| 0.1-0.9 | -- | -- | 1 | -- |
| 1.0-1.9 | -- | -- | -- | -- |
| 2.0-2.9 | -- | -- | 1 | -- |
| None in market 1/ | 8 | 3 | 6 | 15 |
| Total | 23 | 33 | 23 | 33 |

-- means not applicable.
1/ Data not available for both types of brands in these markets.

Stores in uncontrolled markets usually priced store brands below processor brands. Stores in 30 uncontrolled markets had both types of brands. In only six of these markets was the modal price the same. Store brands were priced 1 to 3.9 cents per half gallon below processor brands in over half of the markets.

A comparison of modal price differentials between processor brands in stores having only processor brands and store brands in stores having both brands showed that in both controlled and uncontrolled markets there were no differences in price between most stores. Most differences were due to higher prices for processor brands.

Milk Price Differentials Between Containers

Generally, the price of milk in half gallon paper containers was higher than an equivalent amount at the gallon price, whereas the half-gallon price was less than an equivalent amount of milk at the quart price. On this basis, in no market was the price of milk in half gallons equal to or higher than the quart price. However, in a few markets, the half-gallon price was lower than the gallon price (table 11).

Milk in paper half gallons usually sold at higher prices than glass half gallons. Of the 14 uncontrolled markets with both glass and paper, only two sold milk in glass at higher prices. In eight markets, the price of milk in glass half gallons averaged 1.0 to 4.9 cents less than that of paper.

Markets varied considerably in pricing milk in paper and plastic half gallons. Plastic half gallons were priced above and below paper half gallons in an equal number of uncontrolled markets. However, plastic half-gallon prices were higher in all but two controlled markets.

Milk Prices in Supermarkets and Other Foodstores

Generally, milk prices in dairy stores were lower than those in supermarkets, and convenience store prices were higher. Milk prices in dairy stores were lower than those in supermarkets in about three-fourths of the 31 markets with dairy stores. In convenience stores, milk prices were higher than those in supermarkets in about seven-tenths of the 35 markets with convenience stores. In a few markets, mostly controlled, prices were the same in all three types of stores. The average half-gallon price in dairy stores in almost two-thirds of the markets (with lower prices) was 0.1 cent to 2.9 cents below the half-gallon price in supermarkets. For convenience stores, the average milk price in 68 percent of the markets (with higher prices) was 0.1 cent to 3.9 cents per half gallon above the supermarket price (tables 12 and 13).

Table 11--Markets selling various sizes and types of containers of whole milk, by price differential and type of market, 36 markets, 1969-71

| Differential in weighted average price from half gallon paper (cents per half gallon) | Quart | | Half gallon | | Gallon | |
|--|-------|---------|-------------|---------|---------|---------|
| | Paper | | Glass | | Plastic | |
| | Cont. | Uncont. | Cont. | Uncont. | Cont. | Uncont. |
| More than half gallon paper by: | | | | | | |
| 16.0-20.9 | -- | 2 | -- | -- | -- | -- |
| 14.0-15.9 | -- | 1 | -- | -- | -- | -- |
| 12.0-13.9 | -- | 4 | -- | -- | -- | -- |
| 10.0-11.9 | -- | 9 | -- | -- | -- | -- |
| 8.0-9.9 | -- | 5 | -- | -- | -- | -- |
| 6.0-7.9 | -- | -- | -- | 1 | -- | -- |
| 4.0-5.9 | 12 | 6 | -- | -- | -- | -- |
| 2.0-3.9 | 8 | 4 | 1 | 2 | -- | 1 |
| 1.0-1.9 | 2 | 1 | -- | -- | -- | 1 |
| 0.1-0.9 | 1 | -- | 1 | 5 | 2 | 3 |
| 0.01-0.09 | -- | -- | -- | 1 | -- | 1 |
| No difference | -- | -- | -- | 1 | -- | 1 |
| Less than half gallon paper by: | | | | | | |
| 0.1-0.9 | -- | -- | 1 | 2 | 1 | 2 |
| 1.0-1.9 | -- | -- | 3 | -- | -- | 4 |
| 2.0-2.9 | -- | -- | -- | 2 | 1 | 3 |
| 3.0-3.9 | -- | -- | 1 | 2 | 1 | 1 |
| 4.0-4.9 | -- | -- | -- | 2 | 2 | 2 |
| 5.0-5.9 | -- | -- | -- | 1 | 2 | 1 |
| 6.0-6.9 | -- | -- | -- | -- | 2 | 4 |
| 7.0-7.9 | -- | -- | -- | 1 | 2 | 4 |
| 8.0-8.9 | -- | -- | -- | 1 | 3 | 4 |
| 9.0-9.9 | -- | -- | -- | -- | -- | -- |
| 10.0-10.9 | -- | -- | -- | -- | -- | -- |
| 11.0-11.9 | -- | -- | -- | -- | -- | -- |
| 12.0-12.9 | -- | -- | -- | -- | -- | -- |
| 13.0-13.9 | -- | -- | -- | 1 | 1 | -- |
| 14.0-14.9 | -- | -- | -- | -- | -- | -- |
| 15.0-15.9 | -- | -- | -- | -- | -- | -- |
| 16.0-16.9 | -- | -- | -- | -- | -- | -- |
| 17.0-17.9 | -- | -- | -- | -- | -- | -- |
| None in market 1/ | -- | 1 | 18 | 19 | 17 | 26 |
| | | | | 12 | 19 | 11 |
| | | | | 23 | 33 | 23 |
| | | | | 23 | 33 | 23 |
| Total | 23 | 33 | 23 | 33 | 33 | 33 |
| | | | | | | 14 |

-- means not applicable.
1/ Both sizes and types of containers unavailable for comparison.

Table 12--Markets selling whole milk in paper half gallons and gallons in convenience stores and supermarkets, by price differential and type of market, 35 markets, 1969-71

| Differences in weighted average prices (cents per half gallon) | Half gallon | | Gallon | |
|--|--------------------------|-------------------------|-----------------------|-------------------------|
| | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets |
| | <u>Number of markets</u> | | | |
| Convenience stores above supermarkets: | | | | |
| 7.0-13.9 | -- | 3 | -- | -- |
| 6.0-6.9 | -- | -- | 1 | 1 |
| 4.0-5.9 | 3 | 2 | 1 | 1 |
| 2.0-3.9 | 6 | 5 | 3 | 2 |
| 1.0-1.9 | -- | 3 | 2 | 3 |
| 0.1-0.9 | -- | 3 | -- | -- |
| No difference | 5 | -- | 4 | -- |
| Convenience stores below supermarkets: | | | | |
| 0.1-0.9 | -- | 1 | -- | 1 |
| 1.0-1.9 | 1 | 1 | -- | -- |
| 2.0-2.9 | -- | -- | -- | -- |
| 6.0-8.9 | -- | 2 | -- | -- |
| No gallons stocked <u>1/</u> . | -- | -- | 4 | 12 |
| Total | 15 | 20 | 15 | 20 |

-- means not applicable.

1/ Gallons not stocked in both supermarkets and convenience stores.

Table 13--Markets selling whole milk in paper half gallons and gallons in dairy stores and supermarkets, by price differential and type of market, 31 markets, 1969-71

| Difference in weighted average prices (cents per half gallon) | Half gallon | | Gallon | |
|---|--------------------------|-------------------------|-----------------------|-------------------------|
| | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets |
| | <u>Number of markets</u> | | | |
| Dairy stores below supermarkets: | | | | |
| 10.0-13.9 | -- | 1 | -- | 1 |
| 5.0-7.9 | -- | 1 | -- | 1 |
| 4.0-4.9 | -- | 1 | -- | 2 |
| 3.0-3.9 | 1 | 2 | -- | 1 |
| 2.0-2.9 | 1 | 3 | -- | 2 |
| 1.0-1.9 | 2 | 3 | 2 | 1 |
| 0.1-0.9 | 5 | 3 | 1 | 2 |
| No difference | -- | -- | 4 | 1 |
| Dairy stores above supermarkets: | | | | |
| 0.1-0.9 | -- | 3 | 2 | 1 |
| 1.0-1.9 | 1 | 1 | 1 | 1 |
| 2.0-2.9 | 1 | 1 | -- | 1 |
| 3.0-3.9 | -- | -- | -- | 1 |
| 4.0-4.9 | -- | -- | 1 | -- |
| 8.0-8.9 | -- | 1 | -- | -- |
| No gallons stocked <u>1/</u> ... | -- | -- | -- | 5 |
| Total | 11 | 20 | 11 | 20 |

-- means not applicable.

1/ Gallons not stocked in both dairy stores and supermarkets.

Price Differentials Between Whole and Lowfat Milks

Generally, whole milk prices were higher than prices for lowfat milks-- 2-percent milk, 1-percent milk, and skim milk. Whole milk in half gallons was priced (1) higher than 2-percent milk in 80 percent of the markets, (2) higher than 1-percent milk in 53 percent of the markets, and (3) higher than skim milk in 94 percent of the markets (table 14).

In markets where whole milk prices were higher, the differential between the whole milk price and prices for lowfat milks varied from market to market as well as among products. In most markets, the half-gallon price for 1-percent milk was 0.1 cent to 1.9 cents below that for whole milk. The price spread between whole milk and 2-percent milk was somewhat wider, at 0.1 cent to 5.9 cents. The price spread between whole and skim milk was the greatest-- ranging from 1.0 to 10.0 cents, with a modal differential between 3.0 to 3.9 cents.

In some markets, whole milk was priced below lowfat products, especially 1-percent milk. Whole milk was priced below 1-percent milk in 39 percent of the markets, and lower than 2-percent milk and skim milk in 18 and 6 percent of the markets, respectively. The ranges in price differences per half gallon below the lowfat products were as follows: 1-percent milk, 0.01 cent to 10.9 cents; 2-percent milk, 0.01 cent to 10.9 cents; skim milk, 2.0 to 10.9 cents.

COMPARISON OF CHAINSTORE PRICES WITH THOSE OF OTHER SUPERMARKETS

Supermarkets owned by chain organizations generally priced whole milk at or below prices of other types of supermarkets. The average chainstore price for half gallons was below voluntary and cooperative stores in 52 percent of the markets, above in 36 percent, and the same in 12 percent. Chainstore prices per half gallon were below those for independents in 60 percent of the markets, above in 30 percent, and the same in 10 percent. The difference in price between chainstores and other supermarkets was generally 1 to 2 cents per half gallon--whether the chainstore price was above or below (table 15).

SALES BY TYPE OF CONTAINER

The proportion of all milk sold in glass containers has been declining gradually for many years. Paper and, in more recent years, plastic have been replacing glass. These changes have occurred more rapidly in supermarkets and convenience stores than in dairy stores. Only seven supermarkets located in two markets were selling any milk in glass. In three markets, some milk was being sold in glass in convenience stores. Most of the milk sales in glass containers were made by dairy stores--in 54.8 percent of the markets, dairy stores were selling some milk in glass along with various combinations of paper and plastic. Dairy stores in 19 percent of the markets (with dairy stores) sold milk in glass gallons only (table 16).

Table 14--Markets selling whole milk and selected lowfat milks in various sizes of paper containers, by price differential and type of market, 56 markets, 1969-71

| Difference in weighted average prices from whole milk in same container (cents per half gallon) | 2-percent milk | | 1-percent milk | | Skim milk | |
|---|----------------|----------------|----------------|----------------|--------------|----------------|
| | Half gallon | | Gallon | | Half gallon | |
| | Cont. market | Uncont. market | Cont. market | Uncont. market | Cont. market | Uncont. market |
| Number of markets | | | | | | |
| Less than whole milk: | | | | | | |
| 10.0-12.9 | -- | 1 | -- | -- | 3 | 1 |
| 8.0-9.9 | -- | -- | -- | -- | 4 | 2 |
| 7.0-7.9 | -- | -- | 1 | -- | 2 | 2 |
| 6.0-6.9 | -- | -- | 1 | -- | 3 | 5 |
| 5.0-5.9 | -- | 6 | -- | -- | -- | 3 |
| 4.0-4.9 | 4 | 2 | -- | 1 | 6 | 2 |
| 3.0-3.9 | 1 | 3 | 1 | -- | 3 | 4 |
| 2.0-2.9 | 1 | 5 | 2 | 1 | 1 | -- |
| 1.0-1.9 | 6 | 3 | 2 | 3 | 2 | 4 |
| 0.1-0.9 | 2 | 6 | 2 | 3 | -- | 2 |
| 0.01-0.09 | 1 | -- | -- | -- | -- | -- |
| No difference | 1 | -- | -- | 3 | 1 | -- |
| More than whole milk: | | | | | | |
| 0.01-0.09 | 2 | -- | -- | 2 | -- | -- |
| 0.1-0.9 | -- | 1 | -- | 3 | -- | -- |
| 1.0-1.9 | -- | -- | -- | 1 | 1 | -- |
| 2.0-2.9 | -- | -- | 1 | -- | 3 | 1 |
| 3.0-4.9 | -- | -- | -- | -- | -- | 1 |
| 6.0-7.9 | -- | 2 | -- | -- | -- | 1 |
| 8.0-10.9 | -- | 4 | -- | -- | 1 | 1 |
| 11.0-13.9 | -- | -- | -- | -- | -- | -- |
| 14.0-16.9 | -- | -- | -- | -- | -- | -- |
| None in market 1/ | 5 | 0 | 20 | 18 | 6 | 14 |
| Total | 23 | 33 | 23 | 33 | 23 | 33 |

-- means not applicable.
1/ Complete data not available for these markets.

Table 15--Markets selling whole milk, by type of supermarket, price differential, size of container, and type of market, 32 markets, 1969-71

| Differences in weighted average prices (cents per half gallon) | Half gallon | | Gallon | |
|--|--------------------------|--------------|------------|--------------|
| | Controlled | Uncontrolled | Controlled | Uncontrolled |
| | <u>Number of markets</u> | | | |
| Chainstores above voluntary and cooperative stores: | | | | |
| 3.0-3.9 | -- | 1 | -- | 1 |
| 2.0-2.9 | -- | -- | -- | 1 |
| 1.0-1.9 | 1 | 1 | -- | -- |
| 0.1-0.9 | 3 | 3 | 1 | 2 |
| No difference | 3 | -- | 7 | -- |
| Chainstores below voluntary and cooperative stores: | | | | |
| 0.1-0.9 | 4 | 2 | 3 | 2 |
| 1.0-1.9 | 1 | 3 | - | 1 |
| 2.0-2.9 | -- | 1 | - | 1 |
| 3.0-3.9 | -- | -- | - | -- |
| 4.0-4.9 | -- | 1 | - | -- |
| 5.0-7.9 | -- | 1 | - | -- |
| No gallons in both types of stores | -- | -- | 1 | 5 |
| Total | 12 | 13 | 12 | 13 |
| Chainstores above independent stores: | | | | |
| 4.0-4.9 | -- | -- | -- | 1 |
| 3.0-3.9 | -- | -- | -- | -- |
| 2.0-2.9 | -- | 1 | -- | -- |
| 1.0-1.9 | 1 | 1 | -- | 1 |
| No difference | 1 | -- | 2 | 1 |
| Chainstores below independent stores: | | | | |
| 0.1-0.9 | -- | 2 | -- | 3 |
| 1.0-1.9 | -- | 1 | -- | 1 |
| 2.0-2.9 | -- | 1 | -- | -- |
| 6.0-6.9 | -- | 2 | -- | -- |
| No gallons in both types of stores | -- | -- | -- | 1 |
| Total | 2 | 8 | 2 | 8 |
| Number of markets | 13 | 19 | 13 | 19 |

-- means not applicable.

LOWFAT MILK SALES IN SOUTHEASTERN MARKETS

Generally, most lowfat milks sold in Southeastern markets were fortified with either vitamin D or vitamins A and D, although some unfortified lowfat milks were sold in nine markets. 7/ None was sold fortified with vitamin A only (table 17).

All markets sold 1- and 2-percent milks. One-percent milk appeared to have the largest share of all lowfat milk sold. It made up over 60 percent of lowfat milk sales in almost 53 percent of the markets, whereas 2-percent milk constituted over 60 percent of sales in only 24 percent of the markets (table 18).

7/ No information given on cartons.

Table 17--Markets selling lowfat milk fortified with vitamins, by percentage of milk sold and type of market,
17 Southeastern markets, 1971

| Percentage of total lowfat milk sold in each market | Vitamin D | | Vitamin A & D | | No information on carton | |
|--|-----------------------|-------------------------|-----------------------|-------------------------|--------------------------|-------------------------|
| | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets |
| | Number of markets | | | | | |
| 0.1-9.9 | 1 | 6 | -- | -- | 1 | 2 |
| 10.0-19.9 | 1 | -- | -- | 1 | 1 | -- |
| 20.0-29.9 | -- | 1 | -- | -- | -- | 1 |
| 30.0-39.9 | -- | -- | -- | -- | 1 | -- |
| 40.0-49.9 | -- | 1 | -- | -- | 1 | 1 |
| 50.0-59.9 | 1 | -- | -- | -- | -- | -- |
| 60.0-69.9 | -- | -- | 1 | -- | -- | -- |
| 70.0-79.9 | -- | -- | -- | 1 | -- | 1 |
| 80.0-89.9 | -- | -- | 2 | -- | -- | -- |
| 90.0-99.9 | -- | 1 | 1 | 5 | -- | -- |
| 100.0 | -- | -- | 3 | -- | -- | -- |
| Total | 3 | 9 | 7 | 7 | 4 | 5 |
| Markets with no vitamin milk sales | 5 | 0 | 1 | 2 | 4 | 4 |

-- means not applicable.

Table 18--Markets selling lowfat milks, by percentage of milk sold and type of market, 17 Southeastern markets, 1971

| Percent of lowfat milk sold in each market | 1- percent milk | | 2- percent milk | |
|---|-----------------------|--------------------------|-----------------------|-------------------------|
| | Controlled markets | Uncontrolled markets | Controlled markets | Uncontrolled markets |
| | | <u>Number of markets</u> | | |
| 0.1-9.9 | 1 | 2 | -- | -- |
| 10.0-19.9 | -- | -- | 1 | 1 |
| 20.0-29.9 | -- | -- | 3 | 1 |
| 30.0-39.9 | 1 | -- | -- | 3 |
| 40.0-49.9 | 1 | 1 | 1 | 1 |
| 50.0-59.9 | 1 | 1 | 1 | 1 |
| 60.0-69.9 | -- | 4 | 1 | -- |
| 70.0-79.9 | 3 | 1 | -- | -- |
| 80.0-89.9 | 1 | -- | -- | -- |
| 90.0-99.9 | -- | -- | 1 | 2 |
| Total | 8 | 9 | 8 | 9 |

-- means not applicable.

APPENDIX

| Small Markets | | Large Markets | |
|-----------------------|-----------------------|---------------------|-------------------------|
| <u>Controlled</u> | <u>Uncontrolled</u> | <u>Controlled</u> | <u>Uncontrolled</u> |
| <u>Maine</u> | <u>New Hampshire</u> | <u>New Jersey</u> | <u>District of Col.</u> |
| Augusta | Concord | Newark- | Washington |
| Caribou | Manchester | Elizabeth | |
| Portland | | | <u>Ohio</u> |
| Presque Isle | <u>Connecticut</u> | <u>Pennsylvania</u> | Cleveland |
| | Hartford | Philadelphia | |
| <u>Vermont</u> | New Haven | Pittsburgh | <u>Illinois</u> |
| Burlington | | | Chicago |
| | <u>Delaware</u> | | |
| <u>New Jersey</u> | Wilmington | | |
| Atlantic City | | | |
| Camden | <u>Maryland</u> | | |
| Trenton | Baltimore | | |
| | | | |
| <u>Pennsylvania</u> | <u>West Virginia</u> | | |
| Erie | Charleston | | |
| Harrisburg | Huntington | | |
| Johnstown | Wheeling | | |
| Scranton- | | | |
| Wilkes-Barre | <u>Ohio</u> | | |
| | Akron | | |
| <u>Alabama</u> | Canton | | |
| Birmingham | Cincinnati | | |
| Montgomery | Columbus | | |
| | Dayton | | |
| <u>South Carolina</u> | Toledo | | |
| Columbia | Youngstown | | |
| Greenville | | | |
| | <u>Illinois</u> | | |
| <u>Virginia</u> | Alton | | |
| Bristol | Peoria | | |
| Portsmouth- | Rockford | | |
| Norfolk | Rock Island | | |
| Richmond | Springfield | | |
| Roanoke | | | |
| | <u>Florida</u> | | |
| | Jacksonville | | |
| | | | |
| | <u>Georgia</u> | | |
| | Atlanta | | |
| | | | |
| | <u>North Carolina</u> | | |
| | Asheville | | |
| | Charlotte | | |
| | Durham | | |
| | Winston-Salem | | |
| | | | |
| | <u>Tennessee</u> | | |
| | Chattanooga | | |
| | Knoxville | | |
| | Nashville | | |

